



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/401,874	09/23/1999	FERDINAND ENGEL	00124/024001	5265

7590

03/20/2002

ERIC L PRAHL
FISH & RICHARDSON P C
225 FRANKLIN STREET
BOSTON, MA 021102804

EXAMINER

LE, DIEU MINH T

ART UNIT

PAPER NUMBER

2184

DATE MAILED: 03/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/401,874

Applicant(s)

ENGEL

Examiner

DIEU - MINH LE

Group Art Unit

2184

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE THREE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 01/09/02
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-31 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-31 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of References Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

Art Unit: 2184

1. This Office Action is in response to the amendment filed January 09, 2002 in application 09/401,874.
2. Claims 1-31 are again presented for examination.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carusone, Jr. et al. (US Patent 5,157,667 hereafter referred to as Carusone) in view of Reynolds et al. (US Patent 6,138,161 hereafter referred to as Reynolds).

This rejection is being applied for the same reasons set forth in the previous Office Action paper number 5, paragraphs 3-4 mailed July 30, 2001.

As per claims 1-31, see the previous office action for the teaching of Carusone and Reynolds, as well as the reasons and motivation for combined.

Applicant asserts that Carusone and Reynolds fail to teach or suggest the following:

Art Unit: 2184

- a. "an attempt to communicate" which "fails";
- b. "identifying the target device as failed device";

Examiner respectfully transverses Applicant's arguments as follows:

a. First, Examiner would like to re-emphasize the Carusone's method and apparatus for performing fault isolation and failure analysis system having multi-processing units, multi-switches, multi-control units, and other communication devices, fig. 2. Carusone further addressed the failures (i.e., a target failure) identified, reported, isolated, and analysis for correction [col. 5, lines 29-64]. In addition, a fault message is generated and reported to the central location [col. 9, lines 41-55]. These capabilities do clearly address the Applicant's argument, which is "an attempt to communicate" which "fails".

Second, Examiner would like to bring Applicant's attention to the Carusone's method and apparatus for performing fault isolation and failure analysis system which performing the failure detection and isolation [col. 10, lines 55-64]. Carusone explicitly addressed 1) fault generation and fault analysis, 2)

Art Unit: 2184

system configuration, 3) collect error report and isolate a fault in a distributed link, 4) error or failure message report, 5) isolating a fault to one of a multiplicity of units in a distributed communication system [col. 4, lines 23-38].

Therefore, it is obvious to an ordinary skill in the art to realize the Carusone's fault detection and isolation system does deal such capability which is "an attempt to communication" which fails as claimed by Applicant.

Third, besides Carusone's method and apparatus for performing fault isolation and failure analysis system, the Reynolds' method and system for eliminating communication failure and avoid the loss of data that may occur as a result of a network link failure [col. 1, lines 6-16]. Reynolds explicitly disclosed a communication connectivity among an initiator and target devices via a communication link [fig. 2].

Fourth, "an attempt to communicate" which "fails" is clearly taught by both Carusone and Reynolds; Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize the Carusone's method and apparatus for performing fault isolation and failure analysis in a switching networking environment having capability

Art Unit: 2184

of LAN traffics sent to central service processor for processing error failure report as being sending packet data to target device as claimed by Applicant. This is because the Carusone's device failure detection, isolation, and analysis within a networking system would have included such data/packet sending and responding to and from target device (i.e., central service processor) since the target device or central service processor is used as a base target or element to engineering and determining the cause of network failure. It is further obvious because the Carusone's failure device analysis method explicitly uses the device neighboring function to determining the failure. Therefore, the use of data/packet exchange among communication devices and central processor or target device is well known to a person having ordinary skill in the art and does not require undue experiment; *second*, one would modify the Carusone's performing fault isolation and failure analysis to explicitly including the sending data including the addresses to target device as taught by Reynolds in supporting the fail-over device.

b. First, the combination of both Carusone and Reynolds do teach "identifying the target device as failed device" as argued by Applicant.

Art Unit: 2184

Carusone disclosed capabilities of:

- fault location (i.e., target fail device) [abstract];
- error detection and isolation via "nearest neighbor" means and transmit to the central location [col. 5, lines 19-28];

In addition, Reynolds addressed:

- target device break (i.e., target device failed) [col. 10, lines 17-32];
- target device changes due to communication break [col. 7, lines 58 through col. 8, lines 11].

Therefore, it is obvious to an ordinary skill in the art to realize both Carusone's method and apparatus for performing fault isolation and failure analysis system, the Reynolds' method and system for eliminating communication failure and avoid the loss of data that may occur as a result of a network link failure do deal with the failure target device in order to detect and isolate failure for system operation uninterruptedly.

Second, Carusone substantially teaches the invention.

Carusone teaches:

- a method of identifying a failed device in a network [abstract, fig. 1, col. 1, lines 10-14];

Art Unit: 2184

- attempting communication with a device [col. 6, lines 40-45];

- determining if a device has an active neighbor if attempt to communication with failed device [abstract, col. 5, line 8-37 and col. 8, lines 61-68];

- identifying the device as a failed device if the device has an active neighbor [col. 6, lines 11-25 and col. 9, lines 8-40].

Carusone does not explicitly teach:

- a device as a target device.

However, Carusone does disclose capability of:

- a central service processor (i.e., target device) within a networking switching environment [col. 9, lines 33-64];
- central reporting location for linking networking devices or units [col. 16, lines 60-67].

In addition, Reynolds discloses capabilities of:

- communication network comprising router as target device [abstract, col. 4, lines 45-62];

Art Unit: 2184

- communication between the target device and the initiator via a network to eliminating the loss of data or failure [col. 4, lines 35-44].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made *first* to realize the Carusone's method and apparatus for performing fault isolation and failure analysis in a switching networking environment having capabilities of neighboring devices data analysis, and devices failure detection, more specifically, central service processor, as being the target device within a network as claimed by Applicant. This is because the Carusone's device failure detection, isolation, and analysis within a networking system would have included such target device (i.e., central service processor) since the target device or central service processor is used as a base target or element to engineering and determining the cause of network failure; *second*, one would modify the Carusone's performing fault isolation and failure analysis to explicitly including the target device with capability of eliminating the failure or data loss as taught by Reynolds in supporting the networking operation system environment. By utilizing this approach, first, neighboring

Art Unit: 2184

network devices can be related and accurately pinpointed or determined the failure device so that the network can isolate the problem and prevent any service disruption for ensuring error detected, isolated and corrected within or among communication devices via neighboring device functionality in providing data fidelity and reliability; second, the data/error control networking system (i.e., target device among neighboring communication devices) can operate with a high reliability, availability, and flexibility environment which eventually will increase its performance, such as data throughput between internal and external devices.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Art Unit: 2184

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu-Minh Le whose telephone number is (703) 305-9408. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel, can be reached on (703)305-9713. The fax phone number for this Group is (703) 746-7239. Any inquiry of a general nature or relating

Art Unit: 2184

to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231


or faxed to:

(703) 746-7238, (for formal communications; please mark "EXPEDITED PROCEDURE")

Or:

(703) 746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).


DIEU-MINH THAITLE
PRIMARY EXAMINER
ART UNIT 2184

DML
March 18, 2002